# **Questions**

# Questions signed by have been taken from the school book.

# on lesson one

### 1. Choose the correct answer:

- During skating on ice, a(an) ..... arises.
  - a. friction force b. movement force c. electricity d. (b) and (c)
- 2. ..... slows down the moving object.
  - a. Movement force b. Heat energy c. Friction force d. Kinetic energy
- Friction force acts in a direction ...... the direction of motion.
  - a. opposite to
     b. perpendicular to
     c. parallel to
     d. is the same
- The reason for moving the ball on the floor of your room for a longer time than on street is that ...........
  - a. the friction force between the ball and the street is larger than that between the ball and the floor.
  - b. the friction force between the ball and the floor is equal to that between the ball and the street.
  - c. the friction force between the ball and the floor is larger than that between the ball and the street.
  - d. (a) and (b) are correct.
- 5. There is a friction force between ......
  - a. the bicycle's tire and the road. b. the ball and the ground.
  - c. two books touch each other.
     d. all the previous answers.
- 6. Sliding a body down over another body means that ......
  - a. the friction force between the two bodies is larger than the movement force.
  - b. the friction force between the two bodies is smaller than the movement force.
  - c. the movement force between the two bodies is smaller than the friction force.
  - d. no correct answer.
- 7. Friction force depends on ......
  - a. the type of the material surface only.
  - b. the surface area of the moving object.
  - c. the speed of the moving object.
  - d. (a), (b) and (c).
- When the surface area of the moving object increases, the friction force ......
  - a. increases.

b. decreases.

c. doesn't change.

d. (a), (b) and (c).

	5			
9.	Friction between	a small marble and	ceramic is	that between
	a big marble and	d ceramic.		
	a. larger than	b. smaller than	c. equal to	d. zero
10.	Friction force inc	reases		
	a. by increasing	the surface area of t	the moving object	ct.
	b. between roug			
	Laborate and the	ana salar salar		

- between smooth surfaces. d. (a) and (b).
- 11. When the speed of the moving object increases, the friction force ...... a. increases. b. decreases. c. doesn't change. d. (a), (b) and (c).
- 12. The stopping of a bike gradually during movement is due to the increase in .....
  - a. the friction force. b. the magnet.
- c. the attraction force. d. all the previous answers.
- The moving bike is affected by air resistance that acts ...... to its movement.
  - a. in the perpendicular direction b. in the opposite direction c. in the same direction d. parallel
- Air resistance increases when .....
  - a. the car velocity decreases. b. the car velocity increases.
  - c. the car changes its direction. d. the car doesn't move.
- 15. Modern cars are designed with streamline shapes to ......
  - a. increase air resistance. b. decrease water resistance.
- c. be attractive. d. decrease air resistance.
- Air resistance for a moving bicycle depends on ..... a. the speed of the bicycle. b. the surface area of the bicycle.
  - c. the colour of the bicycle. d. (a) and (b).
- 17. By increasing the surface area of a moving train, air resistance increases. This means that there is .....
- a. a direct relation between them. b. an indirect relation between them.
  - c. a curved relation between them. d. no relation between them.
- 18. Rockets and aircrafts have streamline shapes ......
  - a. to increase air resistance. b. to decrease air resistance.
  - c. to increase the surface area. d. to decrease water resistance.

### QUESTIONS LESSON 1

19.	When the parachutist opens his parac	hute during landing, air resistance		
	a. decreases.	b. increases.		
	c. doesn't exist.	d. remains constant.		
20.	Birds or bats stretch their wings or	landing to		
	<ol> <li>increase their sufrace area.</li> </ol>	b. increase the air resistance.		
	c. decrease their speed.	d. (a), (b) and (c).		
21.	is the friction force resulting	from the movement of any object		
	through water.			
	a. Air resistance	b. Magnetic force		
	c. Water resistance	d. Kinetic force		
22.	By decreasing the speed of the ship	through water, water resistance		
	a. increases.	b. decreases.		
	c. remains constant.	d. no correct answer.		
23.	Fish or dolphins have streamline s	hapes to		
	a. reduce water resistance.	b. reduce their surface area.		
	c. increase water resistance.	d. (a) and (b).		
9				
		nt and (x) in front of the wrong one,		
8 1	en correct it :	dispetion of the measurement		
1.	of the object.	ne same direction of the movement	,	١
2.	Friction force between two surf	aces during motion is greater	<b>\</b> :	,
۷.	than that during stopping.	acco danning motion to grouter	(	)
3.	Friction force is the reason for stopp	ing any body during motion.	ì	)
4.	Friction force between a rubber bal	맛 보통 사람들은 사람들은 경기를 가면 하면 보다면 하는데 보고 있다.		150
	that between the same ball and th	The state of the s	(	)
5.	III The pushing of an object forward	rds is opposed by a friction force		
	at the same direction.		(	)
6.	Friction force depends on the sh	ape of the two touching objects.	(	)
7.	By increasing the surface area of	the moving object, the friction force		
	decreases.		(	)
8.	- (2) 15 이 이용 전에 가는 보다면 되었습니다. 이 경기를 보고 보면 있다. 그는 생각이 되었습니다. 이 경기 보고 있습니다. 이 경기 없는 것이다. 그런 사람들이 되었습니다. 그렇게 그렇게 되었습니다. 그렇게 되었습니다. 그렇게 그렇게 되었습니다. 그렇게	the surface area of the moving object	ct	,
^	and the friction force.	wah aumfaasa and insessass babusas	(	)
9.	smooth surfaces.	ough surfaces and increases between	,	١
	SITIOUTI SUITACES.		(	,
			_	

10.	Friction force depends only on the type of the material surface and the surface area of the moving object.	,	,
11		1	)
11.	There is a direct relation between the speed of the moving object and the friction force.	(	)
12.	Air resistance decreases when the car moves so fast.	(	)
13.	The relationship between the surface area of an object exposed		
	to air and air resistance is an inverse relation.	(	)
14.	By increasing the bicycle speed, air resistance increases.	(	)
15.	Water resistance increases by increasing the surface area of the moving object.	(	)
16.	Birds and bats stretch their wings during landing to decrease air	•	٠
	resistance.	(	)
17.	When the parachutist opens his parachute, air resistance decreases.	(	)
18.	Air resistance for objects that move at high speed can't be observed.	(	)
19.	The streamline shape of the ship increases water resistance.	(	)
20.	Air resistance is the friction force resulting from the movement of any object through water.	(	)
3. W	rite the scientific term of each of the following:		
	The force that slows down the moving object and its effect is in		
	the opposite direction of the object movement. (		.)
2.	The force that arises between two surfaces when one of them slides of the other.		
3.	A force acts in the opposite direction to the movement force. (		.)
4.	III The friction force between air and the moving objects through it.		
	<b>(</b>		.)
5.	The force that opposes the movement direction of the parachutist. (		.)
6.	The relation between the surface area of a moving body and air		
	resistance. (		٠)
7.	It is the friction force resulting from the movement of any object through water.		.)
8.	A force opposes the motion of a boat in the river. (		.)
9.	A force increases when the speed of the swimmer through water increas	es.	
	(		.)
			051

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# QUESTIONS LESSON 1

_	
4. c	omplete the following statements :
1.	When a body touches another body, a arises.
2.	The force that slows down the objects' motion is called
3.	The effect of the friction force is in the direction of the object's
	movement.
4.	The reason for stopping a ball after pushing it on ground is
5.	When a rubber ball touches a sandy floor, arises.
6.	Any body moves when force is smaller than force.
7.	When you stop pedalling during the movement of the bike, its speed decreases gradually until it stops due to the effect of
8.	and are from the factors affecting the friction force.
	increases by increasing the surface area of a moving object.
	Friction force increases between surfaces and between
	smooth surfaces.
11.	In the value of between two surfaces depends on the type of
	material of both surfaces.
12.	III The friction force between air and the object that moves through is
	called
13.	Air resistance acts in to the movement direction.
14.	By increasing the speed of a car, air resistance
15.	Air resistance when the car or the bicycle moves slowly.
16.	Rockets, and are designed in streamline shapes to
17.	Birds and bats have to decrease air resistance.
18.	Parachutist opens the parachute and birds stretch their wings on
	landing to increase that accordingly increases the
19.	When a body moves through water, it is affected by
20.	The resistance of water is in a direction to the direction of
	object's motion.
21.	The friction force between water and the object that moves through is
22	Called
22.	The movement of fish or ships through water is in the opposite direction to
22	the
	and are the factors affecting water resistance and air resistance.
	Fish have streamline shapes to
20.	versa.

### 5. Give reasons for the following:

- 1. If you push a toy car on the floor, it moves for a certain distance till it stops.
- When you stop pedalling during the movement of the bike, it slows down.
- There is a direct relation between the friction force and the surface area of the moving object.
- The friction force depends on the type of the material surface.
- Marble moves on the ground of the classroom for a longer distance than that on the playground.
- Friction force between glass and glass is smaller than that between glass and wood.

- 7. Air resistance depends on the speed of the body that moves through air.
- 8. III Rockets, trains, modern cars and aircrafts have streamline shapes.

- 9. Birds bodies have streamline shapes.
- 10. Parachutist opens the parachute on landing.
- 11. Bat stretches its wings on landing.
- 12. A fish has a streamline shape.
- 13. When the speed of the swimmer decreases, water resistance decreases.
- 14. Air resistance and water resistance slow down the movement of the body.

6. What	happens	if ?
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- You stop pedalling during the movement of the bike.
- You increase the surface area of the moving object.
- The speed of the aircraft increases.
- A swimmer swims in water with a very high velocity.
- 7. Write a brief account of friction.
- 8. What happens if you drop two similar sheets of paper, one of them is folded and the other is unfolded. Which one reaches the ground first? Give reason.
- 9. What is meant by ...?
  - Friction force.
  - Air resistance.
  - 3. Water resistance.
- 10. Draw the direction of the friction force in the opposite diagram.
- 11. Prove with a practical experiment that the friction force changes by changing the type of the material surface.



المعاصر علوم لغات (شرح) / ٥ب/ تيرم ٢ (م: ٤)



# Timss Questions

1. Explain why the cube in figure (1) doesn't move, while the cube in figure (2) slides down.

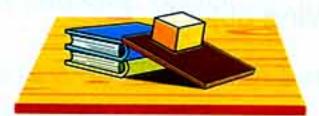


Figure (1)

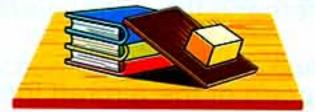


Figure (2)

2. Look at the opposite figure, then answer:

- 1. When you throw a marble on the ground, why does it slow down gradually?
- 2. What is the direction of the force that causes the stopping of the moving marble?



3. Which of the following figures is affected by air resistance and which is affected by water resistance.



Fig. (a)



Fig. (b)



Fig. (c)



Fig. (d)

\*\*\*\*\*\*\*\*\*\*



Fig. (e)



Fig. (f)

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# **Questions**

#### Questions signed by lave been taken from the school book.

# on lesson two

#### . Choose the correct answer:

- All the following are advantages of friction except ......
  - a. it helps in moving and stopping cars and bicycles.
  - b. it enables us to control the car speed.
  - it enables us to walk.
  - d. it damages the internal moving parts of machines.
- The friction between your shoes and the ground prevents .....
  - a. walking.
- b. running.
- c. slipping down.
   d. writing.
- Car brakes that are used to stop cars depend on .....
  - a. air resistance.

b. water resistance.

c. friction force.

- d. (a), (b) and (c).
- Friction force is necessary for .....
  - a. lighting a match.

- b. changing the car direction.
- c. moving a car forwards.
- d. (a), (b) and (c).
- Friction between the internal moving parts of a machine causes ......
  - a. the erosion of the machine parts.
  - b. the damage of the machine parts.
  - the increase in their temperature.
  - d. all the previous answers.
- Friction causes a great loss of money, because ......
  - a. it causes damages for machines.
  - b. it forms magnets.
  - c. it repairs a lot of machines.
  - d. it provides the machines with new parts.
- To decrease the friction force, we must use .....
  - a. lubricants and oil. b. batteries.
- c. ball bearings. d. (a) and (c).
- All of the following factors reduce the friction force except ......
  - a. lubricants.

- b. oil.
- increasing the surface area of the moving parts.
- d. using ball bearings.

المعاصر علوم لغات (شرح) / ٥ب/ تيرم ٢ (م: ٥)

9.	of machines to decrease friction.	er between the internal moving pa	rts
	a. Lubricating b. Oiling	c. Ball bearing d. (a) and (b)	
10.	Technicians put all the following mat of machines except	erials between the internal parts	
	a. lubricants. b. oil.	<ul> <li>c. ball bearings. d. rough balls.</li> </ul>	
11.	It is advisable not to increase the car s	speed up to a certain limit	
	a. to reduce air resistance.	to reduce the consumption of fuel.	
	c. to increase its surface area.	l. (a) and (b).	
12.	Modern cars are designed in stream	line shapes to	
	a. increase air resistance.	decrease water resistance.	
	c. be attractive.	decrease air resistance.	
13.	The rubber tires of the car have curv	ed grooves to	
	a. squeeze the water out.	control the vehicle.	
	c. make their shapes beautiful.	trap the water under them.	
14.	The presence of water on a road,	the friction force between car	
	tires and the road.		
	a. increases b. decreases	keeps d. doesn't affect	
2. P	ut ( / ) in front of the right statement	and (x) in front of the wrong one.	
	en correct it :		
1.	Friction is necessary for lighting a m	atch.	)
	Controlling the car speed and change		
Ţ	the advantages of friction force.	(11.9) 11.0 (11.0) 11.0 (11.0)	)
3.	Friction force prevent us from slippin	a down during walking.	í
4.	Friction between the moving parts of		
	their temperature and damage for m		)
5.	Damage of machines is from the dis	7×40000100000000000000000000000000000000	)
6.	Ball bearings are used to increas	e the friction force.	)
7.	Lubricants and oil are used to de	crease the friction force. (	)
8.	Ball bearings reduce the friction force	e as they consist of small metallic	
	balls with smooth surfaces.		)
9.	Air resistance decreases when the	N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	)
10.	Car drivers must increase the speed	of their cars in order to decrease	() E
	the fuel consumption.	(	)

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# QUESTIONS LESSON 2

11.	Car tires have grooves and channels to squeeze water out as vinces and the friction force	
10	increases the friction force.	( )
12.	Car tires should be replaced when their grooves disappear.	( )
<b>3.</b> w	rite the scientific term of each of the following:	
1.	A force enables us to control the car speed and to change its d	irection.
		()
2.	A force helps us in running and walking.	()
3.	The force which is necessary for lighting a match.	()
4.	Materials used to reduce the friction force by forming a thin lay	er between
	the internal moving parts of machines.	()
5.	A set of small balls with smooth surfaces is put between the	
_	moving parts of machines.	()
6.		()
7.	A structure exists in the axis of a car engine and transmits the	
. 4	from the car engine to the wheels.	()
4. C	omplete the following statements :	
1.	is necessary to control the car speed and to change its	
2.	enables us to walk on ground.	
3.	of a match is from the advantages of friction.	
4.	Car breaks depend on force in slowing dowing and stop	ping cars.
5.	is from the disadvantages of friction force.	
6.	The rise in temperature of the moving parts of machines is due	
7.	Lubricating and oiling the mechanical machines reduce the	
_	between their moving parts and prevent their	• OF CATALOGY
8.		force
0	between the internal moving parts of machines.	ourfooo
	is formed of a group of small metallic balls with smooth s	
10.	The axis of the car engine that transmits the motion from it to the contains	le Wileels
11	Ball bearings are designed to reduce the friction force, because	e thev
	contain balls that have surfaces.	
12.	Increasing the speed of a car causes the increase of an	nd
	the consumption of	

- 13. The modern cars save the consumption of fuel than the old ones, because they have ......
- 14. Car tires have ...... connected with ..... to squeeze the water out.
- 15. The presence of ...... and ..... in car tires reduce the effect of water in friction force.

......

.

16. [11] The wet roads leads to ...... between car tires and the road.

### 5. Give reasons for the following:

- The car movement needs friction force.
- 2. Friction force has many disadvantages.
- Damage of the internal parts of machines.
- 4. Lubricants and oil are used in the mechanical machines.
- Ball bearings are put between the surfaces of the moving parts of machines.
- The friction force between the metallic balls of a ball bearing is almost non-existent.
- 7. Car drivers shouldn't increase the car speed up to a certain limit.
- 8. Technicians put ball bearings between the internal moving parts of machines.
- Friction force causes a great economical loss.
- A large amount of fuel is consumed when the car moves with high speed.
- The presence of grooves and narrow channels in car tires.

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QUESTIONS LESSON 2

<b>6.</b> w	hat is meant by ? Ball bearings.
	hat happens if ?  Absence of friction between car tires and the road.
2.	Absence of friction between your shoes and the road.
3.	The internal moving parts of machines touch each other.
4.	No lubrication takes place periodically on the metallic machine parts.
5.	Engineers design modern cars and aircrafts with large surface areas.
6.	The temperature of the internal moving parts of machines increases.
7.	Technicians put ball bearings between the internal moving parts of machines.
8.	Moving cars with high speed on a wet road.
9.	There are no grooves and narrow channels in the car tires.
<b>8.</b> N	lention the use of :
1.	Lubricants and oil in machines.
2.	Ball bearings in the car engine.
3.	Ball bearings in mechanical machines.
9.	The friction force is very necessary. Write the advantages of friction.
10.	Mention the most important ways to decrease the friction force.



# Timss Questions

1. The following photos shows car (A) which is a modern car and car (B) which is an old one. Complete the following sentences:



Car (A)



Car (B)

<ol> <li>Air resistance that affects car</li> </ol>	is	greater	than tha	t affects
car				

- 2. The opposite figure shows a young running girl.
  - Mention the type of friction that opposes her during running.
  - 2. The ...... force between the ground and her ..... helps her to stop running.



3. III The opposite figure shows an electrical saw.

### Answer the following questions:

- 1. Why does the temperature of the electrical saw become high?
- 2. Why is oil used to lubricate the moving parts of machines?



Electrical saw

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Lesson 1



Test yourself

Answer each of the following questions :

1	Complete	the	following	statements

(5 marks)

- it is called ·········
- 2. By increasing the ..... and ..... of the body, the air resistance increases.
- 3. ..... and ..... are the factors that affect friction force.

1. The friction force between air and the object that moves through

- Parachutist opens the parachute during landing to increase its ...... that increases .......
- 5. Rockets and ..... are designed in streamline shapes to ......

### 2 (A) Give reasons for :

(5 marks)

- Birds stretch their wings on landing.
- 2. The cars and aircrafts are designed with streamline shapes.

(B) What are the factors affecting the air resistance?

### 3 Rewrite the following statements after correcting the underlined words:

(5 marks)

- Friction force depends on <u>the colour</u> of the two touching objects.
- As the exposed surface area of the object increases, the resistance of air decreases.
- Trains and aircrafts are designed in streamline shapes to <u>increase</u> the air resistance.

4

Test yourself

objects through air.	
5. When the velocity of a train <u>decreases</u> , the air resistan	ce increases.
Look at the opposite figure, then answer the following  1. What is meant by air resistance ?	questions : (5 marks
2. Why does the front part of the aircraft have a streamline shape?	
3. Give two examples of other bodies have streamline sha	oes.
4. Complete :  If the direction of movement is forward, so the direction is	of the air resistance
Choose from column (B) what suits it in column (A) :	(5 marks

(A)	(B)
The moving car is affected by the air resistance that acts	a. is a direct relation.     b. increase their surface area.
2. Friction between rough surfaces 3. By increasing the speed of a train,	c. is more than that between smooth surfaces.
4. Birds stretch their wings on landing to 5. The relation between the surface area of	d. in the opposite direction of its movement.
the moving body and the air resistance	e. the air resistance increases.

Lesson 1

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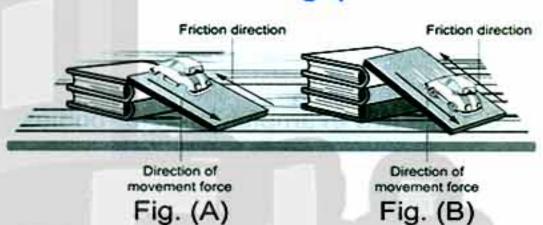
Test yourself 2

Answer each of the following questions :

(A) Mention two methods to decrease the water resistance.	(5 marks)
••••••	

### (B) Look at the opposite figures, then answer the following questions:

- What is the reason that causes the sliding down of the toy car in figure (B) ?
- 2. Why doesn't the toy car in figure (A) move ?



### 2 Complete the following statements by using the words between brackets:

(5 marks)

( air resistance - streamline - friction - water resistance - opposite direction - increase - decreases )

- is the friction force that results from the movement of objects through water.
- 2. The movement of the ship is in the ..... of the water resistance.
- 3. Fish have ..... shapes to decrease the water resistance.
- 4. By decreasing the speed of dolphin in water, the water resistance .........
- 5. ..... is one of the types of friction force.

### 3 (A) Give reasons for :

(5 marks)

- 1. When the speed of a swimmer decreases, water resistance decreases.
- Air and water resistances slow down the movement of a body.
- Dolphin has a streamline shape.

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Test yourself

Choose the correct	t answer :	121	(5 mark
<ol> <li>There is ······· rel the moving body.</li> </ol>		ater resistance ar	nd the surface area of
a. a curved	b. a direct	c. an indirect	d. no
2 is a type of	friction force as a b	ody moves throug	h water.
a. Air resistance		<ul><li>b. Water resista</li></ul>	ance
<ul> <li>c. Electrical resis</li> </ul>	tance	d. Magnetic res	sistance
3. Sliding a body do	wn over another bo	dy means that	
a. friction force be	etween the two bodie	es is larger than the	e movement force.
b. friction force be	etween the two bodie	s is smaller than th	e movement force.
c. movement force	e between the two bo	odies is smaller tha	n the friction force.
d. friction force is	equal to movement	force.	
<ol> <li>The friction force surfaces.</li> </ol>	between rough surf	aces is that	between smooth
a. larger than.	b. less than	c. zero	d. similar
		0. 20.0	G. G
5 is (are) from	m the factors affecting		
	m the factors affecting the body through wa	ng water resistanc	
a. The speed of t		ng water resistanc ter	e.
a. The speed of t	the body through wa	ng water resistanc ter	e.
a. The speed of to	the body through wa	ng water resistanc ter	e.
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)	the body through wa rea of the body that in natch	ng water resistance ter moves through wa	e. ater
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following	the body through waterea of the body that inatch	ng water resistance ter moves through water relation between	n the surface area of
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following the moving both	the body through water ea of the body that hatch graph indicates the dy and the water re	ng water resistance ter moves through water relation between	e. ater
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following the moving both	the body through waterea of the body that inatch	relation between	n the surface area of
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following the moving both 1. What is the type the moving both 1.	the body through water ea of the body that hatch graph indicates the dy and the water re	relation between	n the surface area of
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following the moving both the moving both 1. What is the to be complete:	the body through water ea of the body that hatch  graph indicates the dy and the water response of this relation?	relation between	n the surface area of (5 mar
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following the moving both the moving both 1. What is the type of the increase	the body through water ea of the body that hatch  graph indicates the dy and the water record ype of this relation?  In a surface are the surf	relation between water w	n the surface area of (5 mar
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following the moving both the moving both the following the moving the following the fo	the body through water ea of the body that in atch  graph indicates the dy and the water record ype of this relation?  In the surface are gloody through water	relation between water w	n the surface area of (5 mar
a. The speed of to b. The surface and c. Lighting of a mod. (a) and (b)  (A) The following the moving both the moving both the following the moving the following the moving the following the moving the following the moving the following the following the moving the following the fo	the body through water ea of the body that in atch  graph indicates the dy and the water recognished the surface are gloody through water no body through	relation between water w	n the surface area of (5 mar

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Lesson 2

25

Test yourself

Answer each of the following questions:

Complete the following statements:

(5 marks)

- The presence of ...... and channels in car tires reduce the effect of water on a wet road.
- 2. ..... and ..... are from the advantages of friction force.
- Reducing the car speed causes reducing the air resistance and decreasing ...... consumption.
- 4. .... that are used to stop the car depends on friction force.

### 2 (A) Give reasons for :

(5 marks)

Lubricants and oil are used in machines.

- Friction force causes a great economical loss.
- Car tires should be replaced when their grooves disappear.

(B) Rewrite the following statements after correcting the underlined words:

- 1. Oil increases friction force between the moving parts of machines.
- When a car moves quickly on a wet road, the friction force <u>increases</u> and the control of the car is <u>very easy</u>.

......

\_\_\_\_\_

(A) What happens if ... ?

(5 marks)

- Absence of friction between car tires and the road.
- The temperature of the internal moving parts of machines increases.
- 3. There are no grooves and narrow channels in car tires.

8

### Test yourself

B) Put (✓) or (🗴):		(5 mai	rks
1. Air resistance decreases when a	car moves so fast.	(	
2. Lighting a match needs friction for	rce.	(	3
3. Car tires have grooves and chann	els to squeeze water out.	(	
4. Controlling the car speed and cha	nging its direction is one of		
the advantages of friction force.		(	
Write the scientific term :	_ In	(5 mai	rks
1. Materials that form a thin layer between	en the internal moving parts of	f machine	es
in order to reduce friction force between	en them. ( ······		
2. A set of small balls with smooth surface	ces placed between the intern	al moving	g
parts of machines.	(		
3. A force that helps us to walk and run.	(		
4. They depend on friction force to slow	down or stop a car. (		
5. A force that causes increasing of temp			
machines.	(		
A) Choose the correct answer :		(5 mai	rks
1. Modern cars are designed with st	ream line shapes to		
a. increase air resistance.	b. decrease air resistan	ce.	
c. decrease fuel consumption.	d. (b) and (c)		
In car engines, exist to trait to the wheels.	nsmit the motion from the car	engine a	xis
a. lubricants b. oil	c. ball bearings d. ba	attery	
3. All the following are advantages of	of friction force except		
<ul> <li>a. it helps in moving and stopping</li> </ul>	cars.		
	4.1		
<ul> <li>b. it is necessary for lighting a ma</li> </ul>	itch.		
c. it enables us to walk.		ALTERNATION OF STREET	
		chines.	
c. it enables us to walk. d. it causes increasing of temperatur 4. Car brakes that are used to stop of	re of internal moving parts of mad	chines.	
<ul> <li>c. it enables us to walk.</li> <li>d. it causes increasing of temperature</li> <li>4. Car brakes that are used to stop of a. air resistance.</li> </ul>	re of internal moving parts of mad cars depend on b. water resistance.	chines.	
c. it enables us to walk. d. it causes increasing of temperatur 4. Car brakes that are used to stop of	re of internal moving parts of mad	chines.	

# **Model Exam On Unit**



Answer ea	ch of the	following	questions:
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Write the scientific term :	(5 marks)
1. A force opposes the motion of a boat in the river.	()
2. A force enables us to control the car speed and change	
its direction.	()
<ol><li>A force produced when a ball touches the floor.</li></ol>	()
4. A set of small balls with smooth surfaces is put between the	internal moving
parts of machines.	()
5. A force resulting from the movement of objects through air.	()
Complete the following statements :	(5 marks)
1 exists between two surfaces when they touch each oth	ner and it acts in
the direction of the movement.	
2 and are the factors that affect the air resistance.	
3. Fish have streamline shapes to while birds have streamline	amline shapes
to	
<ol> <li>There is a ······· relation between the surface area of the more resistance.</li> </ol>	oving bird and air
5. The friction between your shoes and helps in walking	and
prevents	
6 of a match is one of the advantages of friction.	
(A) Give reasons for :	(5 marks)
<ol> <li>Rockets, trains and aircrafts have streamline shapes.</li> </ol>	
2. A rise in the temperature of the internal moving parts of	machines.
3. The narrow channels of car tires are connected with cur	ved grooves.

### Test yourself

Loo	k at the opposite figure that shows a parachutist flies in air :	(5 mark
1. W	hy does the parachutist open his parachute on landing?	AD
2. D	raw arrows to refer to the direction of air resistance and	MIM
th	e direction of movement.	
3. M	lention the factors affecting air resistance.	
	(√) or (x), then correct the wrong ones :	A CONTRACTOR OF STATE
1. D	uring riding a bicycle, there is a magnetic force between the bicyc	Name and Address of the
1. D	uring riding a bicycle, there is a magnetic force between the bicycle road.	ele tires and
1. D th ( 2. Tl	uring riding a bicycle, there is a magnetic force between the bicyc	
1. D th ( 2. Tl	uring riding a bicycle, there is a magnetic force between the bicycle road.  )	en smooth
1. D th ( 2. Ti si ( 3. Ti	uring riding a bicycle, there is a magnetic force between the bicycle road.  )	en smooth
1. D th ( 2. Tl st ( 3. Tl	uring riding a bicycle, there is a magnetic force between the bicycle road.  )	en smooth